

CLAIMS

1. An image processing device for, when overprinting a multicolor original with a plurality of color inks, converting
5 multivalued pixel values of a color space corresponding to an image of the multicolor original into multivalued pixel values of a color space corresponding to the color inks, the image processing device comprising:

a color space coordinate conversion unit configured to,
10 with reference to a color conversion LUT which stores relationship between the multivalued pixel values of the color space corresponding to the multicolor original and the multivalued pixel values of the color space corresponding to the color inks, convert the multivalued pixel values of the
15 color space corresponding to the multicolor original into the multivalued pixel values of the color space corresponding to the color inks; and

a correction unit configured to correct at least one of the multivalued pixel values of the color space corresponding
20 to the color inks, the multivalued pixel values being converted based on the color conversion LUT, and the multivalued pixel values of the color space corresponding to the color inks, the multivalued pixel values being stored in the color conversion LUT, according to the color inks and an overprint sequence of
25 the color inks.

2. The image processing device according to claim 1,
wherein the color conversion LUT stores the relationship
between the multivalued pixel values of the color space
corresponding to the multicolor original and the multivalued
30 pixel values of the color space corresponding to the color inks, the relationship being for the case where both or one of a

trapping phenomenon and a back-trapping phenomenon does not occur when the color inks are overprinted.

3. The image processing device according to claim 1,
wherein, when the multivalued pixel values of the color
5 space corresponding to a later-printed color ink are equal to
or more than a predetermined threshold value, the correction
unit calculates a correction factor from the threshold value
and the multivalued pixel values of the color space
corresponding to the later-printed color ink according to the
10 overprint sequence, and by using the calculated correction
factor, corrects the multivalued pixel values of the color space
corresponding to a previously-printed color ink.

4. The image processing device according to claim 1,
wherein the correction unit calculates a correction
15 factor from the multivalued pixel values of the color space
corresponding to a previously-printed color ink and a trapping
rate of a later-printed color ink according to the overprint
sequence, and by using the calculated correction factor,
corrects the multivalued pixel values of the color space
20 corresponding to the later-printed color ink.

5. The image processing device according to claim 1,
wherein the correction unit calculates a correction
factor from the multivalued pixel values of the color space
corresponding to a later-printed color ink and a back-trapping
25 rate of a previously-printed color ink according to the
overprint sequence, and by using the calculated correction
factor, corrects the multivalued pixel values of the color space
corresponding to the previously-printed color ink.

6. An image processing method for, when overprinting a
30 multicolor original with a plurality of color inks, converting
multivalued pixel values of a color space corresponding to an

image of the multicolor original into multivalued pixel values of a color space corresponding to the color inks, the image processing method comprising the steps of:

5 with reference to a color conversion LUT which stores relationships between the multivalued pixel values of the color space corresponding to the multicolor original and the multivalued pixel values of the color space corresponding to the color inks, converting an arbitrary pixel value selected from among the multivalued pixel values of the color space
10 corresponding to the multicolor original into the multivalued pixel value of the color space corresponding to the color inks; and

correcting the converted multivalued pixel values of the color space corresponding to the color inks according to the color inks and an overprint sequence of the color inks.
15

7. An image processing method for, when overprinting a multicolor original with a plurality of color inks, converting multivalued pixel values of a color space corresponding to an image of the multicolor original into multivalued pixel values
20 of a color space corresponding to the color inks, the image processing method comprising the steps of:

correcting, according to the color inks and an overprint sequence of the color inks, the multivalued pixel values of the color space corresponding to the color inks, the multivalued
25 pixel values being stored in a color conversion LUT which stores relationship between the multivalued pixel values of the color space corresponding to the multicolor original and the multivalued pixel values of the color space corresponding to the color inks; and

30 converting an arbitrary pixel value selected from among the multivalued pixel values of the color space corresponding

to the multicolor original into the multivalued pixel value of the color space corresponding to the color inks with reference to the corrected color conversion LUT.

8. A printer driver of a printing machine which overprints a multicolor original with a plurality of color inks based on image data of the multicolor original, the image data being created by an application program, the printer driver comprising:

a color space coordinate conversion unit configured to, with reference to a color conversion LUT which stores relationship between multivalued pixel values of a color space corresponding to the multicolor original and multivalued pixel values of a color space corresponding to the color inks, convert the multivalued pixel values of the color space corresponding to the multicolor original into multivalued pixel values of the color space corresponding to the color inks; and

a correction unit configured to correct at least one of the multivalued pixel values of the color space corresponding to the color inks, the multivalued pixel values being stored in the color conversion LUT, and the multivalued pixel values of the color space corresponding to the color inks, the multivalued pixel values being converted with reference to the color conversion LUT, according to the color inks and an overprint sequence of the color inks.

9. The printer driver according to claim 8,

wherein, when the multivalued pixel values of the color space corresponding to a later-printed color ink are equal to or more than a predetermined threshold value, the correction unit calculates a correction factor from the threshold value and the multivalued pixel values of the color space corresponding to the later-printed color ink according to the

overprint sequence, and by using the calculated correction factor, corrects the multivalued pixel values of the color space corresponding to a previously-printed color ink.

10. The printer driver according to claim 8,

5 wherein the correction unit calculates a correction factor from the multivalued pixel values of the color space corresponding to a previously-printed color ink and a trapping rate of later-printed color ink according to the overprint sequence, and by using the calculated correction factor,
10 corrects the multivalued pixel values of the color space corresponding to the later-printed color ink.

11. The printer driver according to claim 8,

 wherein the correction unit calculates a correction factor from the multivalued pixel values of the color space
15 corresponding to later-printed color ink and a back-trapping rate of previously-printed color ink according to the overprint sequence, and by using the calculated correction factor, corrects the multivalued pixel values of the color space corresponding to the previously-printed color ink.

20